

MATH 142 (Section 501) – Calculus II

- Instructor** Professor Doug Meade
Office Hours: MW 10:00–11:00, and by *prior* appointment
Office: LeConte College 300E
Phone: 777-6183
E-mail: meade@math.sc.edu
- WWW URL** <http://www.math.sc.edu/~meade/math142-F03/>
- Meeting Times** MW 11:15AM–12:05PM, LC 401
TTh 11:00AM–11:50AM, LC 401
- Text** Varberg, Purcell, and Rigdon, *Calculus with Analytic Geometry*, Eighth Edition, Prentice–Hall, 2000.
- Prerequisite** Completion of Math 141 with a grade of C or better *or* qualification through placement.
- Course Content** This is a continuation of Math 141 — Calculus I. A working understanding of all the major topics from Math 141: limits, differentiation, integration, extrema, Fundamental Theorem of Calculus, etc. is essential for success in this course. Almost all topics from Chapters 7 – 12 will be discussed in this course.
Some of the specific topics that will be covered include:
- Chapter 7:** Transcendental Functions
 - logarithms
 - inverse functions
 - Chapter 8:** Techniques of Integration
 - substitution
 - integration by parts
 - partial fractions
 - Chapter 9:** Indeterminate Forms and Improper Integrals
 - l'Hôpital's Rule
 - integration when the Fundamental Theorem does not apply
 - Chapter 10:** Numerical Methods and Approximations
 - approximation of functions
 - numerical integration
 - Chapter 11:** Sequences and Series
 - convergence tests
 - power series
 - Chapter 12:** Polar Coordinates
 - graphing
 - area

Study Hints Reading the material **in advance** of the lecture is strongly encouraged. Benefits of this preparation include obtaining a familiarity with the terminology and concepts that will be encountered (so you can distinguish major points from side issues), being able to formulate questions about the parts of the presentation that you do not understand, and having a chance to review the skills and techniques that will be needed to apply the new concepts.

For additional assistance, do not forget about the Math Lab. The Math Lab provides free assistance for all 100-level mathematics courses. The main location is LC 101, with tutors also available in the ACE Offices located in the Towers and Bates House. For updated hours and locations, visit the Math Lab homepage at <http://www.math.sc.edu/mathlab.html>.

Grading Your grade in this course will be based on your performance on quizzes, four (4) mid-term exams, and a final exam. The weights assigned to each of these components will be:

Quizzes	10%
Mid-term exams (3)	60%
Final exam	30%

Course grades will be determined according to the following scale:

A	90 – 100
B	80 – 89
C	70 – 79
D	60 – 69
F	0 – 59

The deadline to drop this course with a grade of W is Thursday, October 2, 2003.

Exams The lowest of your four (4) mid-semester exam scores will not be used in determining your overall grade. *Tentative* dates for these exams are:

Thursday, September 11	Chapter 7
Tuesday, October 7	Chapter 8 (and part of 9)
Thursday, October 30	Chapters 9, 10 (and part of 11)
Tuesday, November 25	Chapter 11

Make-up exams will be given only for documented reasons of illness, family emergency or participation in a University sponsored event. Excuses such as oversleeping, forgetting the time or location of the exam, and lack of studying are explicitly noted as unacceptable grounds for the administration of a make-up exam.

A comprehensive final will be given at 9:00A.M. on Tuesday, December 9, 2003.

Homework Problems will be assigned on a regular basis. You are expected to work all of these problems. We will go over some, but not all, of these problems in class. Your solutions will not be collected.

Quizzes There will be a quiz each Monday of the semester. Each quiz will consist of one or two problems similar in nature to the homework problems. Your quiz grade will be computed by your ten (10) highest quiz scores. *No make-up quizzes will be permitted.*

Attendance Attendance at every class meeting is important – and expected. Students missing more than 10% of the class meetings (4 days) can have their grade lowered.

Academic Honesty Cheating and plagiarism will not be tolerated. You may discuss homework problems with others, but do not copy work from another student or from a book. Violations of this policy will be dealt with according to University guidelines.